

TO FIGHT THE HUNGRY SEA.

SEA GATE ALARMED BY THE WASTING OF ITS BEACH.

Cottagers Likely to Adopt an English Scheme of Defense to-Morrow—And If It Proves Good Others Will Try It—The Example of Manhattan Beach.

The wind and the tide have been so fiercely upon the ocean shore of Sea Gate in the last few winters that the property owners of that little colony have become alarmed and are preparing to erect some sort of defense. The experiment that they are about to try will probably be adopted by other settlements both here and in other States which have seen with dismay the retiring waves roll nearer and nearer to their possessions from year to year.

If you will look at a map of New York—the Greater New York, of course—you will see a short, narrow peninsula stretching westward from the lower end of Brooklyn Borough, and on the very end of it a few acres labeled Sea Gate. It is not hard to imagine that when the waters were divided from the land a sandbank was piled up and swung back across one side of New York harbor like a gate half closed, and there it has stood ever since with the ever-quiet anchorage of Gravesend Bay on the other. So they called the place Sea Gate, or, if that isn't the reason it ought to be.

But the sea, like some more rational creature, knocks hard and long at closed doors, and it has been pounding so mercilessly at this one in recent winters, that nobody was at home, that it threatens to beat down the portal altogether and walk in. The first persons to take alarm at this state of affairs naturally were those whose summer homes lie directly on the southern beach. A bulkhead was built to protect the front door yards some years ago, and they have come to realize that this is not enough. Some well-informed men have estimated that at the present rate of encroachment a large part of the shore between the Sea Gate fence and Beach Forty-second street will be carried away within three years. In that event the bulkhead would be undermined and in the course of time the houses might be expected to topple into the sea and float off.

With this danger in view the beach-front property owners met on Aug. 10, and appointed a committee to study the matter. The committee, acting with Supt. Lott, has devised a scheme by which it hopes to avert the destruction of the shore and eventually to compel the wind and the tide, which have done all the mischief, to repair the damage. Their project has been endorsed by the trustees of the Sea Gate Association, and a meeting of the whole association will be held to-morrow night to ratify their action and authorize the raising of the necessary funds.

The expenditure now contemplated is \$6,000, and of this the beach-front dwellers have offered to pay one-third. Their neighbors will provide the other half. This division of cost seems fair and is likely to be accepted, because, while the people living close to the water have their homes to protect and are therefore most deeply concerned in the enterprise, the other folks within the Gate have equal rights with them in the use of the beach and could not afford to lose it.

When the Sea Gate people came to consider what they must have found very little suggestion from anything that had been done in this country, except the wisdom that comes from bad examples. What their committee has proposed seems to be a modification of a plan which has been applied with great success for many years on the south coast of England and in Holland.

The structures which are employed are called groynes by the English people—our dictionaries spell it "groin"—and the Dutch have named them "duyken". In fact, a sight of an American would be likely to speak of them as jetties, but that would not be strictly correct.

The purpose of groynes is to intercept and blow along the beach above high-water mark and to check the sweep of the tidal current so that the sand and pebbles which it holds in suspension will fall to the bottom.

They are a recognition of the fact that the forces which chiefly destroy a beach are the wind and the sweep of the breakers and their direct recession. It is the scouring and not the battering that does the damage. A misunderstanding of this truth has been responsible for many futile attempts to save American beaches.

The structure provided in a groyne area in form and material according to the location and the character of the beach, whether it is steep or gradual in its slope, and whether it is sand or shingle. The problem presented at Sea Gate is to check the sweep of the beach and to prevent it from being carried away from a slight bluff. Along a great part of its extent this bluff is about 150 feet high at the water's edge and 200 feet at the top. The groynes will be built at intervals of about 200 feet, the experience of British engineers has shown that such a distance is the best to reach further than low-water mark.

The experience of Manhattan Beach was very useful in telling Sea Gate what not to do. Most New Yorkers of middle age will recall the time when there was good sand from Battery down to the tip of Manhattan instead of the sea wall and bulkhead against which the breakers now dash themselves to spray and foam.

The Manhattan Beach was pretty well gone two years ago, and the piling, filled in with stone, and they were made so high that their outer ends were always under water. The tidal current setting against them could not get over them, and it raced madly around the ends, wearing them down and snapping off the piling. Finally they were removed. The same process was going on with a partly open jetty at Brighton.

The Sea Gate groynes will be built of short piling, sunk into the sand so that each pile touches its next neighbor, the whole being strongly bound with heavy planking. The tides will wash over the tops of the groynes and will not beat them down, the speed of the current will be sufficiently diminished to be judged to cause the deposit of about 50 per cent. of the sand which would otherwise be washed away. Engineers say that decreasing a tidal current's velocity by only 2 per cent. will precipitate about 50 per cent. of the sand it is carrying.

The usual force of the wind at Sea Gate is carrying capacity will be appreciated by a judge of the matter. Within an hour or two he will be partly buried in sand, which will be well banked on his windward

MEXICO'S MONEY QUESTION.

HER GREAT NEED OF A GOLD-STANDARD CURRENCY.

Loss in Balance of Trade Through Fluctuation in Silver's Value—Proposals of Joint American and Mexican Commission in Conference With European Governments and Financiers.

The members of the joint American and Mexican Commission on International Exchange Rates, who left for Europe in May, have met with a most favorable reception in their conferences with representatives of the British, French, Dutch and German Governments. In London, Paris and at The Hague it was determined that the conference should remain private and confidential. In Berlin their result has been published through semi-official agencies. According to the Berlin correspondent of the London Times, the Mexican, like the American, is regarded as the European Governments and financiers with whose representatives they have been conferring, approached the question from the monetary point of view, with the object of trying to secure a regulation of the silver currency of their own and other "silver countries" on a system similar to that established by the Imperial British Government in India in 1893. The fall in the value of silver, beginning in the early '70's, and the financial embarrassment caused by the consequent downward tendency of the rupee led to the passing of an act in 1893 closing the Indian mints to the coining of silver till 1900. The gold standard was then fixed by the Imperial Government. The value of the rupee then gradually rose and financial conditions improved. In 1899 a further law was passed making the gold standard more effective, and a timely comment on the success of this financial policy was afforded last week by the Secretary of State for India in presenting the annual statement of the Indian budget in the House of Commons. He announced that there had been substantial surpluses in the past three years, amounting this year to over \$100,000,000. The rupee in the exchange value of the rupee during that period had been only 1/2 per cent., and during the past year only 1/4 per cent., while the Indian merchants had benefited enormously by the stability of the exchange.

Mexico to-day finds herself in a position analogous to that of India in 1893. Her business and labor interests suffer in consequence of the constant fluctuation in the value of silver, and one of her greatest needs is a money currency substantially fixed upon a gold basis. Her credit is good and her commerce is rapidly increasing, and millions of dollars of American and British capital are being invested in the development of her resources. Between the years 1882 and 1902 the value of her exports had risen from 29,000,000 pesos to 188,000,000 pesos in silver, while the value in gold of these exports had only risen from about 20,000,000 to 74,000,000 pesos. The silver value of her exports had thus increased some five and three-quarter times, while their gold value only increased some two and three-quarter times. Hence, it is reckoned that Mexico's loss in ten years, incurred in consequence of the depreciation of her currency, amounted to 27,000,000 pesos. Her general exports, while a further loss of 27,500,000 is estimated in respect of her export of silver alone. On the other hand, the gold value of her imports has decreased in the same period by 14,000,000, as compared with the total decrease of about 60,000,000 in the gold value of her exports, including silver. Hence, as the Berlin correspondent of the London Times puts it, "the general conclusion is drawn that while Mexico is a country with a very large and increasing export trade, she is in a position to increase its exports to countries with a gold standard, it obtains a constantly decreasing amount of foreign products in exchange, and she incurs an economic loss which is not balanced by the development in its export trade."

To remedy this unsatisfactory state of affairs Mexico proposes to raise a loan and create a gold exchange fund for the purpose of putting her currency upon a gold basis. As a preliminary step her Government appointed two commissions, one in the City of Mexico and the other in London, to study the conditions of the proposed new monetary system, and another to deal with the characteristics of international exchange and to procure an understanding with other interested countries as to what should be done to obtain, if possible, a general solution to the problem, establishing a certain uniform gold value of the new currency. The weight and fineness, the system of maintaining the stability of exchange and also the purchase and distribution of silver bullion, which may be required in the interim, are also subjects for consideration. A preliminary report issued in London by Messrs. Enrique C. Creel, Luis Camacho and Eduardo Mader, members of the latter commission, contains a general proposition to establish a gold standard, with a view of securing some plan which would be a material bearing upon it, in a concise and interesting way.

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ROLL YOURSELF TO HEALTH.

PHYSICAL CULTURE AS TAUGHT BY WILD ANIMALS.

They Get Massage and Make the Blood Circulate by Rolling About on the Ground, and the Tired Business Man Can Benefit Himself in the Same Way.

Do you remember how when you were a boy you used to roll around in the grass when you were taken to the country for the summer? Do you remember what your father used to say: "Let the rascal roll, it's good for him"? And, more important still, do you remember how the thought occurred to you and sent you to bed of nights ready for healthful sleep?

The poly-system of outdoor physical culture is as good for grown-ups as it is for children. It is based on the rolling instinct that is natural with children and nearly all wild animals. The child outgrows the habit because of his environment, and thereby loses one of his holds on health, but the wild animal keeps it up through life, and thereby insures itself a splendid circulation of the blood to all parts of the body.

Herein lies the chief value of the poly-system. It gets the body out of its sitting or standing posture. It does all it can to invert the body—to make the heels higher than the head, and to give the head a stipulated blood supply. At the same time that the usually neglected parts of the body are brought into play, no other part is neglected, and for the most part the exercises can be made as severe or gentle as desired.

This instinctive natural exercise is also valuable for its massage effect. In the natural massage can be got in no such measure in any other way. Just as rolling on the grass-covered earth keeps an animal's coat glossy and smooth, so the exercises will keep the skin in the pink of condition if only he will let her. The brain massage is especially good. This is produced by the brain's gravity, which keeps the blood to the side of the skull as the body is rolled about.

Let the man who has been in his office the year around, or who smokes too much or who has been living too hard, start with the simplest roll on his back. He should gradually work up to the harder ones. In this way he will accustom his body to strange positions that, once were natural and easy accomplishments, without any accompanying traces of dizziness. But if he should become dizzy, let him rest and try it again, and before long no uncomfortable feeling will be noticed.

The exercises—four are described below—will soon let the man know where he is weak and what muscles need building up. Let him heed the warning, center the mind on those parts and strive earnestly to strengthen them against the day of disease. Let him not be annoyed by any signs to him that his efforts are having a beneficial effect.

I. Side Rolling—Lie down flat on your back on a grass plot or the seashore. Bend the knees, grasp the toes with the hands in the hands and see that the feet are touching. Pull a little in opposite directions with the hands, the arms may be stretched. Then, at first, roll from side to side on the back only. When you become more proficient roll clear over and make a sharp turn to land on your back again.

II. The Back Roll—This is a difficult but excellent exercise for a fat man, as it speedily reduces the abdomen by compressing it with the hands. Lie on your back, with the hands on the ground at the sides of the head, and with the fingers pointing toward the head. Raise the legs and feet of the body over the head until the toes touch the ground.

When you become adept push against the ground with the hands while the legs are being carried over the head, draw the head from between the arms and lie flat on your stomach. Then, with the arms and legs straight, spring up on a standing position the moment the toes touch the ground.

The placing of the legs over the head keeps the abdominal region and the organs of the digestive tract in a healthy position. The stretching of the muscles along the spine cures weaknesses of the back, and the rapid supply of blood insured the head banishes headaches.

III. Equilibrium Exercise—This is executed on a log eighteen inches or two feet in diameter, or a rock, or a mound of earth or sand. Place the abdomen on the log and have the head, knees and feet on the ground. Bend the knees, grasp the toes with the hands, and then bring the body in a straight line, with the abdomen alone touching any part of the ground.

When on this position it can easily be done, bend up and backward the head, upper back and legs, so that the body will form as much of a semi-circle as possible. At last make them go higher than the abdomen.

The exercise may be varied in many ways. Move arms and legs as in swimming. Kick out in every direction. Lie on either side or on the back.

This vigorous exercise is especially good for the trunk. The arm roll—The arm roll is quite severe for beginners, but the weakest can master it with a little perseverance.

It is done by full length on your side and spread the legs so that both feet can be firmly planted on the ground later on. Then assist with both hands to raise the body and then in a circle and reverse the arm roll.

To vary the exercise and to make it still more severe, bend the arm supporting the body until the forearm lies along the ground and the elbow touches it, and straighten the arm again. This is a particularly energetic exercise for shoulder and wrist.

The original exercise, especially, builds up the hands, wrists and forearms, and near the shoulders and the abdominal region. But the legs and the hips receive not a little benefit.

AN EX-RANDIT FOR HONESTY. Cole Younger States His Principles—Frank James' Advice as to Crooks.

MACON, Mo., Aug. 22.—When Cole Younger, the famous bandit, was in Macon county recently with the Wild West show he was running with Frank James, he gave him some considerable convincing proof that he had adopted a code of ethics. That was when he discharged a concert ticket seller for short-changing a patron. The big, gray-eyed showman remarked that the fellow was a crook, and that the show would be run on the square or not at all, and that if any employee—Indian, cowboy, snake charmer, peacock vender or what not—was caught cheating in the least degree he would be summarily fired.

On that touching occasion Frank James delivered this advice for dealing with the light-fingered gentry:

ROLL YOURSELF TO HEALTH.

PHYSICAL CULTURE AS TAUGHT BY WILD ANIMALS.

They Get Massage and Make the Blood Circulate by Rolling About on the Ground, and the Tired Business Man Can Benefit Himself in the Same Way.

Do you remember how when you were a boy you used to roll around in the grass when you were taken to the country for the summer? Do you remember what your father used to say: "Let the rascal roll, it's good for him"? And, more important still, do you remember how the thought occurred to you and sent you to bed of nights ready for healthful sleep?

The poly-system of outdoor physical culture is as good for grown-ups as it is for children. It is based on the rolling instinct that is natural with children and nearly all wild animals. The child outgrows the habit because of his environment, and thereby loses one of his holds on health, but the wild animal keeps it up through life, and thereby insures itself a splendid circulation of the blood to all parts of the body.

Herein lies the chief value of the poly-system. It gets the body out of its sitting or standing posture. It does all it can to invert the body—to make the heels higher than the head, and to give the head a stipulated blood supply. At the same time that the usually neglected parts of the body are brought into play, no other part is neglected, and for the most part the exercises can be made as severe or gentle as desired.

This instinctive natural exercise is also valuable for its massage effect. In the natural massage can be got in no such measure in any other way. Just as rolling on the grass-covered earth keeps an animal's coat glossy and smooth, so the exercises will keep the skin in the pink of condition if only he will let her. The brain massage is especially good. This is produced by the brain's gravity, which keeps the blood to the side of the skull as the body is rolled about.

Let the man who has been in his office the year around, or who smokes too much or who has been living too hard, start with the simplest roll on his back. He should gradually work up to the harder ones. In this way he will accustom his body to strange positions that, once were natural and easy accomplishments, without any accompanying traces of dizziness. But if he should become dizzy, let him rest and try it again, and before long no uncomfortable feeling will be noticed.

The exercises—four are described below—will soon let the man know where he is weak and what muscles need building up. Let him heed the warning, center the mind on those parts and strive earnestly to strengthen them against the day of disease. Let him not be annoyed by any signs to him that his efforts are having a beneficial effect.

I. Side Rolling—Lie down flat on your back on a grass plot or the seashore. Bend the knees, grasp the toes with the hands in the hands and see that the feet are touching. Pull a little in opposite directions with the hands, the arms may be stretched. Then, at first, roll from side to side on the back only. When you become more proficient roll clear over and make a sharp turn to land on your back again.

II. The Back Roll—This is a difficult but excellent exercise for a fat man, as it speedily reduces the abdomen by compressing it with the hands. Lie on your back, with the hands on the ground at the sides of the head, and with the fingers pointing toward the head. Raise the legs and feet of the body over the head until the toes touch the ground.

When you become adept push against the ground with the hands while the legs are being carried over the head, draw the head from between the arms and lie flat on your stomach. Then, with the arms and legs straight, spring up on a standing position the moment the toes touch the ground.

The placing of the legs over the head keeps the abdominal region and the organs of the digestive tract in a healthy position. The stretching of the muscles along the spine cures weaknesses of the back, and the rapid supply of blood insured the head banishes headaches.

III. Equilibrium Exercise—This is executed on a log eighteen inches or two feet in diameter, or a rock, or a mound of earth or sand. Place the abdomen on the log and have the head, knees and feet on the ground. Bend the knees, grasp the toes with the hands, and then bring the body in a straight line, with the abdomen alone touching any part of the ground.

When on this position it can easily be done, bend up and backward the head, upper back and legs, so that the body will form as much of a semi-circle as possible. At last make them go higher than the abdomen.

The exercise may be varied in many ways. Move arms and legs as in swimming. Kick out in every direction. Lie on either side or on the back.

This vigorous exercise is especially good for the trunk. The arm roll—The arm roll is quite severe for beginners, but the weakest can master it with a little perseverance.

It is done by full length on your side and spread the legs